

Reviewed In This Issue: Adobe After Effects • Canon Digital Video Camera • Rio 800

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Solutions, Work, Play & Education

50 Useful Tips

Discover Mac Secrets

Snap the Perfect Digital Shot
Understand Computer Jargon
Hot News Off the Wire
More On Games & Entertainment

September 2001





What's the point of capturing life's special moments on videos that you can only play on your camcorder? Now, with the new Power Mac™ G4 and Apple's revolutionary iDVD software*, you can actually create your own DVDs. So you can enjoy your movies again and again on almost any standard DVD player.

iDVD's simple drag-and-drop interface makes it easy to create

professional-looking DVD menus

in minutes. You can even

include slide shows

of your favorite digital

photos right alongside

your movies. Then you can use the

new G4's aptly named SuperDrive™ to burn your own custom

DVDs. No more dusty videotapes and crumpled photos. Just

ultra-crisp digital video and CD-quality sound ready to be

shared with friends and family anywhere. To see how you

can make your memories last forever, visit www.apple.com

or call 1-800-MY-APPLE.

 Think different.



Macworld Expo New York

Welcome to our annual tips issue. Our team has done an outstanding job of pulling together tips, tricks, and shortcuts for everything Macintosh — enjoy!

I'm writing this from the floor of the Macworld Expo where we're seeing more Mac OS X applications than you can imagine. Yesterday Apple announced that Mac OS X version 10.1 will be available in September — shortly after you read this. Packed with new features and vast improvements in speed and performance, it's truly amazing, and I

encourage you to give it a try as soon as possible. Some of my favorite new features:

- **The Dock:** many people didn't like the fact that the original Dock was anchored to the bottom of your

screen, and Apple listened. Now you can choose to leave it at the bottom, or place it on either the left or right edge of the screen.

- **Speed:** The OS itself gets improvements in performance, but the most amazing bump shows up when you launch applications — most now launch in just a few seconds.

- **CD/DVD:** You will be able to burn CDs from the finder, and version 10.1 also supports DVD video playback.

- **Digital photo transfers:** Plug your digital camera into your USB port, and version 10.1 recognizes the camera and launches an application that automati-

cally downloads your images to your pictures folder.

The upgrade will be free for current Mac OS X users to download, \$19.95 for a CD copy, and carries a suggested retail price of \$129 for new customers.

Earlier this week I sat down with Kevin Browne — Kevin heads up the Macintosh Business Unit at Microsoft. He and his team gave me an in-depth preview of Microsoft Office for Mac OS X, and they tell me they'll be ready to ship this fall. They've done an outstanding job of taking full advantage of all that Mac OS X has to offer and will deliver a sleek, beautiful suite of applications designed from the ground up with the Mac customer in mind. Keep watching for updates over the coming months — this is one app that I really look forward to getting to know. Visit www.microsoft.com/mac and take a look.

Next month we'll provide in-depth coverage of all the new products we see this week — meanwhile, enjoy the tips and let us know what you think: www.machome.com/feedback.

Best-



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Contents

September 2001 • Volume 9, Number 9

Features

Master Your Mac 10

No matter how long you've been using a Mac, there are ways to use it faster and smarter. We've collected 50 of our best tips to help you along the road to becoming a power user. Mac OS 9, OS X, applications, hardware — there's a tip for everyone.

Word Power 16

Never again get confused by technical terms and antagonistic acronyms. MacHome presents a field guide to the jungle of computer jargon.

Departments

Newsire

New Digital-Analog Converter; Online Tools for Students; Wacom Updates Graphics Tablet; Airport in Your Palm; The Latest, Greatest Burners

4

Workshop

Take your best shot with a digital camera

22

Office Reviews

24

Entertainment Article

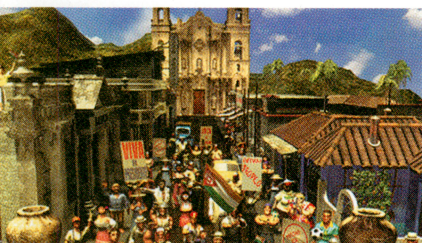
Expansion Pack Strategy: How to squeeze the most fun from one of the hottest expansion packs around — Diablo II: Lord of Destruction

30

Entertainment Reviews

Tropico unleashes your inner dictator

32



32



10



4

Etc...

Publisher's Letter	2
Smart Shopper	34
Ad Index	42

Maxtor Spins Out 3000DV

Maxtor decided to super-size its line of storage devices by releasing the 3000DV FireWire 60GB hard drive. What can 60GB do for you? Store 15,000 MP3s, for starters. Or 1,500 games. Let your imagination run wild. Maxtor also notes that the speed of the 3000DV, with a data transfer rate of 28 MBps, is 56% faster than its older drives.

Maxtor, <http://www.maxtordirect.com/>, 877-692-3562



Palm Gets Airport



Palm m500 owners can now add Airport connectivity to their handhelds, with Xircom's Wireless LAN Module (\$300). Roam up to 100 feet from an Airport Base Station, and the m500 can chatter away over the airwaves or even HotSync with your Mac without a cradle.

Xircom, www.xircom.com, 888-576-9700

Wacom Tablets Draw Better than Ever

Wacom has updated its economy model graphics tablet by introducing the Graphire2 (\$99.) The USB system uses a cordless pen and mouse for input on a 4" x 5" pad. The pen, which senses 512 levels of pressure for nuanced movements, has a built-in eraser and a programmable switch that can be configured to function as a double-mouse click or application-specific keystroke. The Graphire2 is bundled with Adobe's Photoshop 5.0 LE and Corel's Painter Classic.

Wacom, www.wacom.com, 800-922-6613



Electric Toolkit from dvGarage

Want to go 3D? The new 3D Toolkit (\$199) from dvGarage can get you there. The system includes DVD-based training hosted by Alex Lindsay, dvGarage founder and former Industrial Light & Magic animator, as well as a full version of ElectricImage Animation System 2.9, which was used to create 3D effects in Star Wars: Episode 1. The 3D Toolkit includes an overview of modeling, animating, and rendering, as well as both basic and advanced tutorials. It also includes a collection of texture maps, models, surface settings, and more — including Mac OS X support!

dvGarage, www.dvgarage.com

Crunching Numbers in OS X

Mac OS X has a new spreadsheet, and its name is Mesa 3 (\$129). Designed by P & L Software, the program uses an icon-based interface to bring you over 100 calculating functions and a formula builder, along with chart and report generation tools. You can import Excel and 1-2-3 files so there's no need to restart spreadsheets from scratch. Mesa 3 is aimed towards those of us who want more functionality than AppleWorks provides, but don't want to use Excel.

"Mesa 3 is an incredibly powerful tool, using state of the art of Mac OS X. We at Apple are proud to see such a well-designed application emerging on OS X," Michel Sutter, partnership manager, Apple Worldwide Developer Relations, said. Check out the demo to see if it's for you.

P & L Software, www.plsys.com,
44-1494-43-2422

OS X Goes to Mac School

Chancery Software has released Mac School, its automated student management software, with OS X support. "We are committed to supporting several thousand Mac School sites by continuing to enhance our solutions for the Mac platform," said Rick Moignard, Chancery's president and CEO. The program takes over repetitive, time-consuming tasks like registering students, generating transcripts or report cards, and recording attendance. Pricing depends on number of modules and licenses purchased; for more information, call the number below.

Chancery Software,
www.chancery.com/products/mac-school.html, 800-999-9931



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THE MEDIA MATTERS

New CD-RWs on Fire



TDK has rolled out its first external veloCD

FireWire CD-RW; the new burner racks up a speed rating of 16x10x40x and retails for \$399. The retail bundle includes a FireWire cable, two blank CD-R discs, one blank CD-RW, and burning utility Toast. *TDK, www.tdk.com, 847-803-6100*

The Boa FireWire 24x10x40x CD-RW (\$369) from EZQuest is now shipping. According to the manufacturer, the 24x write speed means that this Boa fills a 74-minute long CD-R with data in three minutes. The drive comes with Toast 5.0, a blank CD-R, a blank CD-RW, and FireWire cable. *EZQuest, www.ezq.com, 714-694-0031*

Finally, TEAC took aim at the "smaller is better" philosophy and plugged batteries into its new CD-W24PE (\$329). The 4x4x6x burner, about the size and weight of a portable CD player, has a USB interface. It's bundled with Toast 5.0, a blank CD-R and CD-RW, plus the USB cable and an AC adapter for those moments when the rechargeable batteries have lost their juice. *TEAC, www.teac.com, (323) 726-0303 x617*

Camedia C-4040 Zoom Now Shooting



The latest onslaught in the digital camera world is on its way from Olympus. A 4.1 megapixel CCD, 3X optical/7.5X digital zoom, and over 15 manual settings stack up to a camera any pro could take into the field. Other new features include a noise-reduction algorithm that

helps the camera produce crisp images under low light or long exposure conditions by comparing the current image to ones produced in more favorable environments. The Camedia C-4040 Zoom (\$1099) stores images on SmartMedia; a 16MB card is included. The camera connects via USB to transfer images to a Mac without requiring additional software.

Olympus, www.olympus.com, 800-622-6372

Director's Cut

There's a fresh analog/digital video converter on the market. Miglia Technology has shipped the Director's Cut. The converter is available as with either a FireWire (\$420) or PCI (\$530) interface. Just add a Mac and a simple video editing application like iMovie, connect your camcorder to the converter, and you're ready to digitize. The Director's Cut has both composite and S-Video connectors for input and output, along with support for watching imported or exported video and audio footage on a preview monitor.

Miglia, www.miglia.com, 44-0-20-7071-0161

Outlook 2001 Delivered

Microsoft has released its popular Outlook Express 2001 for the Mac as a free download. The program runs on Macs with OS 8.6 and newer, but must run in Classic when launched under Mac OS X. Mac-only features include drag-and-drop installation, which allows for installation of the application simply by copying its folder to a hard drive, and Keychain support, which allows for secure storage of password and user ID.

Even better, this lets Mac users into the Exchange game, letting them share calendars, schedules, and contacts with Windows users through Microsoft's Exchange Server (available separately.)

Microsoft, www.microsoft.com, 800-360-7561

OS X on Legacy Macs

Other World Computing now has software that allows Mac OS X to operate on machines that Apple doesn't support. Available as a free download (827 KB), Ryan Rempel's UnsupportedUtilityX lets you install OS X on legacy Mac models with only three clicks more than it takes to install the operating system on a Mac Apple supports. "The unsupported machines that work now are the 7300, 7500, 7600, 8500, 8600, 9500, and 9600, as well the clones that were based on one of these systems — the Umax S900 and J700, and the Power Computing PowerWave and PowerTowerPro," Rempel said. "Other models that use the PCI architecture may be made to work in time. Models based on the NuBus architecture are less likely to ever work with Mac OS X." However, be warned that Apple has a list of supported systems for a reason; this utility lets Mac OS X be installed, but it can't speed it up to get the same results as a supported Mac.

Other World Computing, <http://eshop.macsales.com/OSXCenter/>

DESIGNED FOR THE WAY YOU WORK

I'd rather create clocks than invoices.

If I wanted to keep books all day, I'd have been an accountant.



Roy Fox, Founder, Fox Clocks, Hollis, Maine
One of 450,000 MYOB software users

MYOB

**Small Business.
Smart Solutions.SM**

800.322.MYOB
myob.com/us

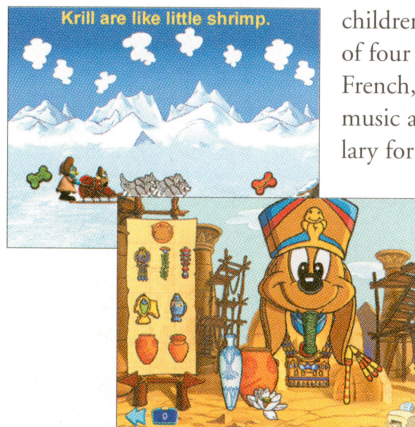
MYOB software is the simplest, most powerful, most complete solution for managing my company on the Mac, from the day to day to the bottom line.

Antique frames. Quartz movements. That's my business.

MYOB software works for me.

Knowledge Adventure JumpStarts School Year

Knowledge Adventure is sending kids back to school with a few new tricks up its sleeves. JumpStart Languages (\$20) introduces children ages 3-6 to the sounds, words, and phrases of four different cultures and languages: Spanish, French, Japanese, and English. Kids are exposed to music and lyrics, art, colors, and numbers, vocabulary for everyday objects, conversational phrases, and cultural stories and characters.



Next, JumpStart Explorers (\$20) takes kids ages 5-8 back in time with famous explorers on extraordinary expeditions. Featuring all-new 3D JumpStart characters, kids will discover the New World with the Pilgrims, explore the Pyramids with King Tut, claim the first steps at the South Pole, uncover the lost civilization of the Inca

Indians, and sail to Asia with Marco Polo.

Both titles are available now.

Knowledge Adventure, www.knowledgeadventure.com, 800-542-4240

Student SOS



Mac-loving students have two more tools in their backpacks as they return to classes this month. First up is Questia, an online collection of more than 40,000 scholarly books, research guides, and writing tools to help them get term papers

written well and on time.

Questia, www.questia.com, 877-783-7842

If that's not enough source material, they can also check out the 2002 edition of the Encyclopedia Britannica, available on both CD-ROM and DVD-ROM. The reference guides merge video, audio, animation, a world atlas, Merriam-Webster dictionary, timelines, and research organizer with new content, a redesigned search index, and improved browsing features.

Britannica, www.britannica.com, 800-323-1229

And last but not least, the World Book Multimedia Encyclopedia 2002 (\$60) is now ready to run on Mac OS X. The two CD-ROM set includes articles; pictures; multimedia content; Homework Wizards, to prepare students for research, school reports, and exams; presentations about historical figures and events from the past 1,000 years; and a word processing application.

World Book, www.worldbook.com, 866-866-5200

Aspyr Learns New Tricks

Aspyr has expanded its reach with a collection of card games from Freeverse Software. Hearts, Spades, Euchre, and Pitch now work under Mac OS X, and on Windows so you can embarrass your card-playing PC friends. Also new is an avatar-building system where you play as a character you create. The bundle, due in October, wasn't priced at the time of publication, but expect it to be a deal.

Pangea's OttoMatic will also be distributed by Aspyr. The new game casts you as a robot battling aliens. OttoMatic arrives in early 2002.

Aspyr also expects Clive Barker's Undying, a first-person horror romp with support for Mac OS X, to be released about now. And new to Aspyr's list is an expansion pack for Elite Force. Due in the fall, this will deliver more levels to the Star Trek first-person shooter.

Aspyr Media, www.aspyr.com

Survive TV Gameshows

MacSoft has announced three new titles that are on the way to the Mac. First, Survivor: The Interactive Game: Australian Outback Edition will put you in the midst of a battle for a virtual million dollars. Choose a character from the television show cast, or create your own player to form alliances, win challenges, and otherwise play through the adventure.

Jeopardy Second Edition and Wheel of Fortune Second Edition are also on the way. Both games feature behind-the-scenes interviews of the shows, and similar gameplay to their predecessors. New questions and puzzles let you play again if you've outrun the competition of the first.

Release dates are not yet ready.

MacSoft, www.macsoft.com



My files are
important.

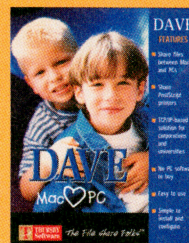
Very important.

I only share my
files with those
I trust.

I trust DAVE®.

Mac to PC, PC to Mac. Cross-platform file and print sharing is too vital to your business to risk. Trust Thursby, the company with 15 years experience. Trust DAVE, the solution with a proven track record. Share files and printers across a network with no barriers. DAVE installs on your Mac with no additional software required for the PC. It's fast, secure and easy to use. Download a free evaluation today!

Trust **DAVE®**.



The File Share Folks™



www.thursby.com

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Master the Mac



50 TIPS to Make You a Power User, or Just Look Like One

By MacHome Staff

There's always one more way to get the most out of your Mac. We've compiled our best tips for Mac OS 9 and Mac OS X, along with ways to teach your applications new tricks. So get ready to show the Mac who's boss:

MAC OS 9

1. Finding Help

Need a little assistance? Consult the Mac OS Help Center. Go to the Finder, and select Help Center from the Help menu. You're immediately presented with a listing of available topics and a handy search field. Enter a keyword in the search window, press return, and select the appropriate article. Many topics offer a quick-link to Apple's Tech Info Library on the Internet. Search results will appear in Sherlock, and if you

see an article you think might explain your problem, you can double-click it to instantly view the article in your web browser.

2. Taking a Screenshot

You can take a snapshot of your screen image by pressing Command-Shift-3 at anytime. To take a snapshot of a specific area of your screen, press Command-Shift-4. You're then presented with a marquee tool so you can select a portion of the screen. You can also take a snapshot of a lone window by pressing Command-Shift-Caps lock-4, and then click on the window of your choice.

3. Stop Sherlock's Snooping *do it once*

It's terribly annoying to be interrupted by Sherlock as it indexes the files on your hard drive each night at 12:00AM. Apple allows you to reschedule or even turn off Sherlock's disruptive detective work. Select Sherlock 2 from the Apple menu. Once it loads, choose Index Volumes from the Find menu. A window appears, listing your hard drive (along with any other hard drives attached to the computer). To turn the Content Indexing off, just uncheck the Use Schedule option.

4. Finder Selection

When navigating in the Finder, Tab will highlight an item and the arrow keys can change the selection. Or type the first few letters of an item to select it. (Bonus tip: This also works in OS X.)

5. Where's the Note Pad?

In what is surely a plot by mysterious forces inside Apple to encourage a switch to Stickies, the Note Pad has been relegated to Apple Extras folder. You can return things to normal by dragging the Note Pad application into the System Folder and dropping into the Apple Menu items folder, where it rightly belongs.

6. Mouse Moving Too Slow?

Do you find that your mouse is a little sluggish? Would you like the cursor to cross your display a little quicker? Open the Mouse control panel. You'll find a slide control that allows you to set the mouse tracking speed. Move the slider all the way to right to give your mouse a real speed boost.

7. Option-Drag to Copy

Hold down the option key while you drag a folder or file to copy it to the new location instead of simply moving it from one place to another. This trick isn't limited to the Finder, however. Applications like AppleWorks, Microsoft Word, Outlook Express, Adobe Photoshop, and Macromedia Freehand all function similarly. Make a selection of text in Microsoft Word, for example, and you can copy it to a new location simply by holding down the option key as you drag and drop.

8. Contextual Menus

Hold down the control key and click the mouse button to bring up a contextual menu, giving you several convenient options for the item you clicked. This trick works just about everywhere. For example, control-click on a document in the Finder to open the item, toss it in the trash, change its label, duplicate it, or even make an alias. Control-click a word in Microsoft Word to change its font, adjust the paragraph, and even get synonyms. Try control-clicking in all your applications to find more convenient shortcuts!

9. Always On Time

Your Macintosh can use a network time server to ensure it always has the right time. Open the Date & Time control panel, and select your time zone (you may have done this already, but double-check your entry to be certain). Move down to the Time Zone box and check-off the option to Set Daylight-Saving Time

Automatically. Now check off the option to Use a Network Time Server, and close the control panel. Your Macintosh will now contact Apple's time server at regular intervals to synchronize its clock.

10. Grabbing the Big Movies

QuickTime 4/5 has a setting for Internet connection speed that may prevent you from obtaining the highest quality movie trailers and hardware ads from Apple's QuickTime website. To change your settings, go to the QuickTime control panel and select Connection Speed from the pop-up menu. Click on Intranet/LAN to ensure you are sent the highest quality content. It takes a lot longer to download these larger files if you are connected with a standard modem, however, so before you change your speed setting, make sure you are comfortable with the extra wait.

11. Trash With Ease

Do you ever find yourself searching for the Trash under layers and layers of open windows just to delete an item? Don't bother! You can delete any item in the Finder with a simple keystroke. Click once on the icon to highlight it and then press Command-Delete. The item will be instantly whisked to the Trash, where it sits until you select Empty Trash from the Special Menu.

12. Drag and Drop Aliases

You can make an alias by holding down Option and Command as you drag an item. The alias will appear wherever you drop the file, leaving the original in its current location. The best thing about drag-and-drop aliases is that the file name omits the suffix alias, as long as it is located in another folder from the original.

13. Spring-Loaded Folders

Want to file a document deep within

HARDWARE

iMac Got You Looking Down?

Do you find yourself tilting your head down to stare at your iMac's display, or raising your hands higher than normal to reach the keyboard? Over time, this can cause muscular discomfort. Consider raising your iMac to eye level with a small shelf or commercial stand. Both the Uniriser (\$30, Contour Designs, www.contourdesign.com) and Cozo Stand (\$60, Cozo, www.cozo.com) bring your iMac up to comfortable level.

Disc Dilemmas

Apple's latest iMacs ship with trayless disc drives. Occasionally, the drive may

find a certain CD or DVD somewhat disagreeable. In rare cases, a disk may not eject far enough for you to grab it and pull it out. Examine the mouth of the drive closely, and you'll see a small hole at the far right. Stick an unfolded paperclip in this hole and you'll be able to manually eject the disc.

Quick Power Off

All new Macintoshes can be turned off by pressing the power button for five seconds. Under normal circumstances, you should still select Shut Down from the Special menu to shut off the computer properly. However, if you've had a crash and you simply want to turn the computer off, the five-second press comes in very handy.

another folder? Drag the item to the top level folder, and keep the mouse button held down. In a moment, the folder will spring open all by itself. Drag the item to the next desired folder, continuing to hold down the mouse button. This folder will automatically open, too. Once you've found the place you want to put the file, simply let go of the mouse button.

14. Accessing Folder Labels

Want to give a folder or document a label color? Control-Click the icon to bring up a contextual menu. Look down the list of options, and you'll see the word Labels. Select a color from the Labels submenu to transform your folder. (Colors can be edited by selecting Preferences from the Finder's Edit menu. Click on the tab marked Labels, and then click on a color to change it.)

15. Desktop Organization Made Simple

To keep the desktop neat and tidy, click once on your desktop background to ensure all files are deselected. Now, select View Options from the View menu. The preferences panel for the desktop then appears. Click the radio button next to Keep arranged and then

select by Kind from the adjacent pop-up menu. This tells the Finder to sort all items on the desktop according to their file type. The icons will flow from top to bottom, right beneath your hard drive icon. Users with lots of junk on their desktops may then choose the smaller icon size to maximize screen real estate. Simply click OK, and your desktop will organize itself!

16. Stay Up-to-Date

Both OS 9 and OS X let you check for operating system updates from Apple. Just select the Software Update system preference or control panel from the Apple menu. The Mac can check on its own — just check the box next to Update Automatically on the control panel.

APPLICATIONS

17. Quickly Open Image Files

Need to open an image quickly? The next time you come across a JPEG, GIF, TIFF, or even Photoshop file that you want to preview, simply drag it onto the QuickTime Control Strip module. PictureViewer will open automatically and display the file.

18. Autorecover Documents

Microsoft has built an auto-recovery feature into Word 2001 to help prevent the loss of unsaved data during a crash. The option is off by default, however. To activate auto-recovery, you'll need to launch Microsoft Word and select Preferences from the Edit menu. In the window that appears, click on the tab marked Save. Near the bottom of the window you'll see the auto-recovery option. Click on the adjacent checkbox to enable it. With the option turned on, Word will automatically save backup copies of your document(s) every ten minutes.

19. Character Limits in FileMaker Pro 5.5

With FileMaker Pro 5.5 you can control the maximum number of characters for a field. Access this feature by selecting File: Define Fields and choosing the field you wish to validate. Select the Options button, choose the Maximum number of characters checkbox, and enter the number of characters you want to validate against. This will validate any field you want based on a defined number of characters. You can also select a strict validation, which forbids users from overriding a validation. Maximum number of characters validation is also a great function for fields that are defined for phone numbers, social security numbers, and any other data that has a preset number of characters.

20. Word's Default Font

Tired of Times Roman? You can change the Microsoft Word 2001 default font easily. Select Font from the Format menu. A window appears, allowing you to change the font style to anything you like. To make your currently selected font the default typeface, simply click Default in the lower left corner. An alert window pops up, asking you to confirm the change. Click Yes and continue your work.

21. Build an Outlook Express Address Book

You can add contacts to your Outlook

Express Address Book quickly and easily if you've already received an email message from that person. Let's say Jenny Doe (jennyydoe@jennyydoe.com) has sent you a message and it is still sitting in your In Box. Click once on the message, and then select Add to Address Book from the Tools menu. This will instantly place Jenny's name and email address in a contact form. Now, if you'd like to add phone numbers and addresses, you'll select Address Book from the Windows menu, double-click the new entry, and fill in the extra information yourself. Most users will be content with a simple name and email address, however.

22. Less Is More

Who wants to re-read an entire email just to find the response? To quote only part of an email in a reply, highlight only the portion you need to quote. Now click reply. Not only is this easier on the recipient, it's also faster for you than deleting line by line what you don't want to include.

23. Customize Internet Explorer Toolbar

Microsoft's latest browser allows web surfers to completely customize the toolbar. Launch Internet Explorer 5, and select Customize Toolbars from the View menu. A page appears containing a gamut of buttons. Aside from the basic navigational buttons for back, forward, reload, stop, and home, you can implement buttons that add the current website to the favorites menu, copy the current web page to the scrapbook, track auctions, and auto-fill forms. Drag and drop the buttons to the toolbar in the order of your choice.

24. Archives, Archives, Everywhere

Aladdin's StuffIt Expander kicks in and decompresses a download as soon as it arrives, but it leaves the original compressed file just sitting there on your desktop. You can take preventative measures to avoid the build-up of such litter. Locate StuffIt Expander 5.5 on your hard

drive, and then launch the application. Select Preferences from the File menu. In the window that appears you'll notice several options listed at the left. Click Expanding, the topmost option. A subset of preferences appears at the right. The second item listed is Expand Archives. Immediately below it is an unchecked option to Delete after expanding. Check this item. The third item listed is Expand Encoded Files. Right beneath it you should see another unchecked option to Delete after expanding. Check this item as well and click OK. StuffIt Expander will now delete all compressed archives once they have been expanded.

25. Overscan DVD Movies

You can connect Apple's latest PowerBooks and iBooks to a television for presentations or to watch DVD movies. Unfortunately, the desktop image is scaled down to ensure it is entirely visible on the television's screen. This leaves black borders all around the displayed image, and depending upon the intensity of the light in different parts of the image, the edges may appear to warp. Thankfully, you can opt to overscan the image to watch DVDs. Connect your PowerBook or iBook to the television, and then drag open the Control Strip. Near the far end, you'll discover a new module has appeared. The TV Mirroring module looks like a television with a Mac OS face in it, and it offers control to improve the onscreen image. Select Overscan so that the left and right edges are comfortably hidden from view.

26. Secure Documents

Looking to protect your documents from prying eyes? Consider Apple File Security, an encryption application included with Mac OS 9. The application can be found in the Security folder within the Applications folder. To



encrypt your sensitive files, simply drag a document or folder onto the Apple File Security icon. You'll be presented with a dialog box asking you to specify a password for the encrypted file. It's very important you remember the password, as the document cannot be

unlocked without it.

27. Locate an iTunes

When iTunes is rocking and rolling, you can instantly call up the file of the current song by hitting Command-R. The file will be displayed on your desktop for times when you want to send someone the song, but don't want to manually dig through your hard drive to find the file.

28. A Dock Without OS X

The Dock is one of the best features of OS X, but what if you don't want to leave OS 9 behind? Go to the View menu, and set the Favorites window as a pop-up. Then from the same menu, display the window contents as buttons. Aliases of frequently used applications, files, and folders are now easily accessed by clicking on the pop-up tab and launching whatever you like. The window automatically settles at the bottom of the screen when you're done.

29. Move Outlook Contacts into Mail

You can get your Outlook Express contacts into OS X's Mail painlessly (thank god.) First, from OS X, open Outlook Express. Select Export Contacts from the File menu, and save the file in the Home directory on the hard drive. Quit OE. Open Mail. From the Window menu, select Addresses. Now choose Import from the File menu, and click the exported OE Contacts file.

In Entourage, click once on the address book, then Export Contacts

from the File menu. The trick now is not to launch Mail, but instead open Address Book among Mac OS X's included applications. Choose Import from the File menu, select the old contacts list, and click Open. Now Mail can complete addresses based on the Address Book.

30. URL Dock Store a favorite website in the Dock, and give it a custom icon! First, drag the URL from the browser to the desktop. Find a file with the icon you want to use. Select the file, and open Show Info from the File menu. Click the icon, and choose Copy from the Edit menu. Now click on the generic URL icon, and hit Paste from the Edit menu. Finally, drag the URL into the Dock.

31. Boot and Launch

To open a program automatically when you launch OS X, head to the System



Preferences item on the Apple menu. Click Show All, then Login, then the Login Items tab. When you click the Add button, you'll be asked to choose an application and hit Open. Now choose Quit System Preferences, and you're all set.

32. Change the Desktop Picture

Many of you will recall that Mac OS 9 allowed you to change your desktop picture through the Appearance control panel. In Mac OS X, the function has been moved to the Finder Preferences. Click once on the Mac OS icon in the Dock to switch to the Finder, and then select Preferences from the Finder menu. The first option listed in the

Finder Preferences window is Desktop Picture. Click once on the adjacent button to select a different background. Apple's got a great selection of new images to choose from, but of course, you can also select any previous image you used under Mac OS 9.

33. Docking Controls

Sure you know that the Dock is a place to store frequently used items, be they documents, applications, or URLs. And you can adjust its size and settings in the Apple Menu under Dock: Dock Preferences. But there are still more tips to uncover about this tool.

Drop a folder into the Dock, and hold down the mouse button or control-click on its icon. A pop-up menu of its contents lets you select anything from within that folder. Try putting your hard disk icon in the Dock to browse the whole volume.

The Dock offers several visual clues to what's going on with your computer. If a dock item is bouncing, then it's launching. Open applications feature a black triangle below their icons. When mousing over an icon, its name will be presented to clarify its origins.

Try some keyboard commands to control the Dock. Command-Option-D toggles between showing and hiding the Dock. And to directly skirt between open applications, hold Command and tap Tab (or Shift-Tab) to bring a new application to the front.

34. I Quit

If an application freezes, force quit it. When you can't normally quit or do anything else, force-quit is a last resort that won't be able to save current work. In Mac OS 9, force-quitting was something isolated from many users, but Mac OS X brings the function to everyone.

To initiate a force-quit if an application seems stuck, select Force Quit

NAVIGATE Mac OS X

1. You need to only click once to **launch an item** in a window toolbar or the Dock.

2. To **open a folder** in a new window, hold down Command as you open it.

3. Mac OS X lets you **close background windows** by clicking once on their red stoplight. Mac OS 9 had required you to first select the window before closing it.

4. Hold Option when closing a window to **close all open windows**.

Hold Option

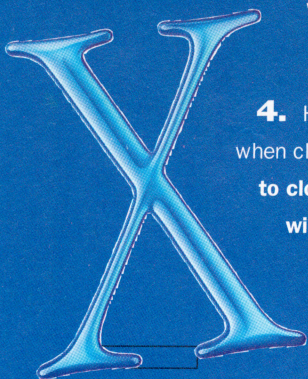
and click on a Dock icon to hide the previous application while moving to the next.

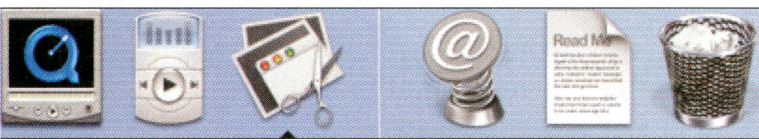
5. To **minimize a window**, double-click its title-bar, press Command-M, or press the yellow minimize button.

6. Press Option-Command-C, H, I, F, or A to **go to your computer**, home, iDisk, favorites, and applications window respectively.

7. To **empty the trash**, select the option in the Finder menu or press Shift-Command-Delete.

8. To **copy a file to a new Finder location**, move it while holding Option. Make an alias by moving a file while holding Command-Option.





on many recent Macs to be prompted to choose on the fly. Or if in Mac

from the Apple Menu, or press Command-Option-Escape. Select the application that hasn't responded, then click the Force Quit button. If the Finder is frozen, try relaunching it from the same screen. In Mac OS X, after a force-quit, you'll have to relaunch the application that you quit, but you won't have to restart anything else.

35. Toolbar Tricks

Mac OS X's Toolbar gives direct access to viewing preferences and special folders on your hard disk, and you can personalize it to your needs. To access the full features of the Toolbar, select Customize Toolbar from the View menu.

In this window, drag any of the new tools and folders into the Toolbar to make an alteration. Add a Path menu that shows the hierarchy of folders, a Documents button, or an Eject button. Add direct access to an iDisk or the Connect option. Organize it all with separators, and click Done to finish the job.

36. Forget Mac OS 9.1?

If you don't install OS 9.1 before installing OS X, Classic applications won't function. You may have problems upgrading to 9.1 after the fact, but it can be done. Select your old OS in the Startup Disk system preference, and restart. Perform a clean installation of Mac OS 9.1 by checking the clean installation checkbox on the select destination disk installation screen. After adding Mac OS 9.1, restart into Mac OS X by selecting Mac OS X in the Startup Disk control panel. Finally, in the Classic system preference, select Mac OS 9.1 to tell the Mac that it's installed.

37. OS Swap

There are several ways to change your operating system between Mac OS 9 and Mac OS X. Hold down option at startup

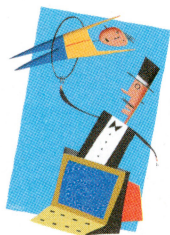
OS 9, push the drop-down triangle next to the hard drive in the Startup Disk control panel to select the OS. You could even select one from a CD. If in Mac OS X, visit the Startup Disk system preference to pick the OS du jour.

38. More Disk Info

To get more information about a Finder window, like how many files are in it or how much space is available, select View: Show Status Bar. The same menu can toggle the extra information off, too.

39. Full Name Disclosure

Hold the mouse over an item that seems truncated — like a horizontally squished list-view Finder name — to see the entire contents of the abbreviated name. After a moment, a pop-up label will present the complete name.



40. Automate Classic

If you frequently rely on the Classic environment, check the box to Start up Classic on login to this computer in the Classic system preference. Whenever you start Mac OS X, Classic will load just afterwards.

41. Save Feedback

Mac OS X applications display a bullet point in the red close button to indicate that you have made changes in a document since your last save. Verify that the bullet is absent when walking away from the computer for any length of time.

42. Rebuild Without Leaving the Comforts of X

Rebuilding the desktop is a good habit to get into. To rebuild the Classic desktop file without leaving OS X, go to System Preferences on the Apple menu. Select Classic, then Advanced. Choose Utilities and you'll see an option to rebuild. **MH**

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By Sandy Brundage

Word Power

A guide to words you've seen before,
now translated into plain talk.

Here at MacHome, we forget ourselves sometimes. Pages fill with phrases from daily office conversations and not with straightforward English: "Hey, Sandy, did you see my new TFT with the 0.20 dot pitch? Makes your CRT look like mud, aperture grill or no aperture grill." (Translation: "Hey, Sandy, my new flat-panel monitor is sharp and crisp; your old monitor just can't keep up with those clear images. I'm so cool.")

So in the spirit of the annual tips issue, here's a road map to terms you should know to understand exactly what makes your Mac tick:

Hardcore Hardware

Bus: The circuit interchange that, like a freeway, lets data travel from one part of the computer or device to another. The main bus is the system bus.

Data transfer rate: How fast data moves from one device or part of the computer to another. This is measured in Mbps, or, millions of bits per second. Another word for data transfer rate is throughput.

DIMM: If you swing by Apple's website (www.apple.com/powermac), you'll see DIMM listed as one of the new G4's selling points. What is this crazy little thing called DIMM? It's a Dual Inline Memory Module in techno-speak. In English, it's a bunch of RAM chips on a circuit board that transfer 64 bits of data at once. SIMM (Single Inline Memory Module), its ancestor, hustled 32 bits.

Firmware: Software that's placed into ROM (Read-Only Memory). A firmware upgrade usually involves an improvement to a piece of hardware.

MHz: Megahertz. This represents the millions of cycles per second a computer's bus or microprocessor makes. This is also known as clock speed, and is one of the factors affecting how fast the computer carries out your instructions, since the computer completes one calculation per cycle.

PCI: Peripheral Component Interconnect, a type of system bus developed by Intel and used in both PCs and Macs for expansion cards.

PRAM: Paramater RAM. A small chunk of memory that stores information like system preferences, along with the date and time. It draws power from a battery on the Mac's motherboard so that turning the computer off doesn't erase the data. When your computer is crashing randomly, someone will suggest "zapping the PRAM." This does not mean throwing the motherboard into the microwave. Zapping the PRAM is a way of knocking that memory back to default values, and you do it by holding down Command-Option-P-R while starting the Mac up. Continue to hold it until the Mac chimes four to five times. It may fix your problem.

Rebuilding the desktop is another oft-suggested option. When files stop being associated with installed applications, and other weirdness ensues, it's not a bad idea. Just hold down Command-Option while booting up. A prompt will ask if you want to rebuild the desktop; click Yes. This updates all file information, like creation dates and application associations, stored by the desktop.

A last resort is doing a clean install, which is reinstalling the operating system from scratch. A clean install creates a new System Folder with the original Apple preferences and Extensions. You'll have to manually move any files from your old folder into the new one if you want to keep using them.

RAM: Random Access Memory. This is the main memory of the computer, and the latest Mac flavor is SDRAM. It's "dynamic" because unless the data it contains is re-sent over and over, it will be lost. This happens because DRAM uses an electrical charge to store information within a capacitor, and a capacitor only holds a charge for a limited amount of time. The Synchronous means that the CPU doesn't sit idle while waiting for the memory to recharge.

ROM: Read-Only Memory. This contains a permanent set of instructions for your computer, like startup routines. Unlike RAM, the content of ROM is permanent. It is not lost when you turn off your computer.

SCSI: Small Computer System Interface. Developed by Apple, the SCSI port was used to connect peripherals like hard drives (up to seven per interface) to Macs until the debut of the iMac.

The throughput of a SCSI interface depends on what flavor it is. For example, Ultra2 SCSI cranks out 40 Mbps while SCSI-1 only manages 4 Mbps.

The iMac left SCSI behind for IDE, which stands for Integrated Drive Electronics. IDE is an internal drive interface that supports two devices per controller. It's Mac and PC friendly, which made it cheaper for Apple to use.

Nothing But Net

Ethernet: A Local Area Network (LAN) protocol that lets millions of bits of data fly through wires with the greatest of speed. The original Ethernet allowed 10Mbps to be transferred (aka 10BaseT). Fast Ethernet, or 100BaseT, cranks that up to 100 Mbps. Finally, there's Gigabit Ethernet (1000BaseT), which racks up 1000Mbps.

Firewall: A firewall separates a LAN from outside networks, like the security gate around an apartment complex. The firewall monitors every computer trying to access the LAN to prevent break-ins. Firewalls are usually a combination of hardware and software.

http: Hypertext Transfer Protocol. You see this at the beginning of a web

address, or URL (Universal Resource Locator) like <http://www.apple.com>. The "http" specifies how data will be transferred between your web browser, the computer, and the website.

If you see "https", that indicates a Secure Hypertext Transfer Protocol. This means that a website uses a Secure Socket Layer (SSL) to send data, like a credit card number, between it and your Mac. The SSL encrypts – or scrambles – your information to protect it if intercepted.

Plug-in: A software module that adds functionality to a program. Downloading the Flash plug-in, for example, will let your browser display animated movies on the web designed with Flash animation software.

Ports of Call

AirPort: The Mac's wireless networking protocol (AKA 802.11). AirPort can fling data from one computer to another at 11 Mbps without wires. Since AirPort uses radio waves, the signals pass through solid objects. As long as you're within 150 feet of an AirPort Base Station (which maintains a physical connection to the Internet), walk around corners, up walls, and under beds — the data transfer keeps rolling.

FireWire: Known pseudonyms include IEEE 1394 and iLink. Currently reaching 400 Mbps, FireWire is one of the speediest peripheral standards for data transfer around, which is why it's so popular for throughput hogs like digital video camcorders. FireWire ports are hot-pluggable, meaning that you don't have to shut the computer down before connecting a device. Unlike USB, one FireWire port supports up to 63 peripherals through a daisy chain, while USB requires hubs. Keep an eye out for the latest version of FireWire, 1394b, which shuttles data at up to 800 Mbps. A file that took 2 minutes to transfer under USB would take 30 seconds with the original FireWire.

USB: Short for Universal Serial Bus, USB is a data transfer standard that tops out at 12 Mbps, which was a huge improvement over the throughput of the Apple Desktop Bus (ADB), which crawled along at 1 Kbps. The standard became popular after Apple released the iMac in 1997 with only USB ports for expansion. These ports are hot-pluggable, and each port can connect up to 127 peripherals through the use of hubs. USB 2.0, also called Hi-Speed USB, is the next incarnation. With a max speed of 480 Mbps, USB 2.0 is about forty times faster.

DVDCDVCDD What?

CD-ROM: Compact Disc-Read Only Memory. This is a type of optical disc that can store up to 650MB of data, which makes it useful for music and image files. A CD-ROM has software permanently pressed onto it at the factory, like a game.

Other types of compact discs come blank. A CD-R is one; it lets you write data to it, using a burner (more boringly known as a CD-R or CD-RW drive). The data can't be overwritten once stored on the disc. Another kind, a CD-RW, can be written and rewritten many times.

DVD-ROM: Digital Versatile Disc-Read-Only Memory. This sort of optical disc holds up to 18.8GB, enough to fit a full two-hour movie. As with CD-ROMs, DVD-ROMs are already crammed with data when duplicated that you can't alter.

There are a different species of DVD. DVD-RAM is a rewritable DVD that holds up to 2.6GB per side. DVD-R is what the SuperDrive uses to burn unalterable 4.7GB discs.

Dissecting the Digital Eye

Digital zoom: To zoom in digitally, the camera's electronic brain estimates what the magnified subject would look like, then shows its best guess. The image looks larger because the camera added pixels, without any physical lens movement involved. However, gaps in the camera's guesswork can lead to blocky images.

Optical zoom: Like the lens on a 35mm camera, a digital camera's lens physically moves to magnify (get closer to) the subject. This avoids the clarity-loss possible with digital zoom.

Megapixel: How many millions of dots a digital camera's CCD captures per shot. The more dots, the clearer the image. Digital cameras usually have anywhere from 1 megapixel to 4.1 megapixels.

Monitor, Monitor on the Wall

Aspect ratio: A display's ratio of width to height. A TV has an aspect ratio of 4:3, and most monitors share that value. The PowerBook G4 has a ratio of 3:2 — great for widescreen movies.

CRT vs. TFT: Once upon a time, monitors worked the same way as television sets. These Cathode Ray Tube (CRT) displays fire an electron beam at dots of phosphor on the inside of a glass tube; the electrons make the dots glow. The dots are packed together so tightly that you see groups lit up as single pixels. The beam moves back and forth to create a screenful of images. To focus the beam, CRT monitors use either a shadow mask or an aperture grill to keep the electrons from spilling over to more than one phosphor dot at a time. A shadow mask is a thin sheet of metal punched with holes that line up with the pixels of the screen to keep the beam on target. An aperture grill is an array of fine metal filaments that run vertically across the display. This yields brighter images, since the electron beam is not as blocked.

The newly economical kids on the block, Thin Film Transistor (TFT) monitors, on the other hand, use a Liquid Crystal Display (LCD.) An LCD is a sandwich of floating rod-shaped crystals between two sheets of glass. As an electrical current washes through the liquid, the crystals rotate to block light or to let it pass through, operating as tiny shutters. Groups of crystals form pixels. LCD displays are smaller than CRTs and consume less power, but a quality TFT costs hundreds of dollars more than a visually equivalent CRT.

Dot pitch: The distance in millimeters between one pixel and the next on the screen. Bigger is not better! The larger the dot pitch, the grainier the display. Look for a dot pitch around 0.21 mm.

Other measures of a monitor's quality are convergence (the clarity and sharpness of each pixel) and refresh rate (how many times the screen is redrawn per second.) You want a refresh rate of at least 72 Hz to avoid flickering.

Footprint: The amount of space a peripheral takes up.

Monitor spanning: A feature of the Mac OS that lets you use two monitors as one single, huge display when they're both hooked up to your desktop computer. Each monitor requires its own video card. No more cluttered Finder — with monitor spanning, you can have a web browser open on one screen and a document on another. All recent PowerBooks support spanning with the built-in LCD and an external monitor.

Some laptops, like the iBook, support monitor mirroring. This mimics the images on the internal display on a larger, external display, useful for situations like an on-the-road business presentation when you need to let a group of people comfortably view documents or for playing a DVD movie on a big screen.

Getting Graphic

AGP: Accelerated Graphics Port. AGP lets the graphics card tap into the computer's memory. By doing this, 3D graphics can be drawn faster than with PCI cards, without bogging down the system. AGP's throughput racks up about 266 Mbps.

Image formats: There's a galaxy of image formats out there. Here are stars:

GIF: Graphics Interchange Format. Popular on the web, GIF supports color and multiple resolutions, as well as lossless compression (no detail is lost). These files, whose names end with ".gif," work on both PCs and Macs.

JPEG: Joint Photographic Experts Group image storage format for color images. JPEGs can be compressed, but this is lossy (some detail is lost thanks to the compression algorithm). JPEG image filenames usually end with ".jpg."

PICT: A Mac-specific image storage format developed by Apple that supports up to 16 million colors.

PNG: Portable Network Graphics; a cross-platform image file format that not only supports 48 bit color, but also uses a lossless compression algorithm.

TIFF: Tagged Image File Format; a bit-map image storage format that works on PCs and Macs. Black and white or in color, it supports multiple resolutions. The file names end in ".tif."

VRAM: Video RAM, a special type of memory on the graphics card that lets visual data be simultaneously processed and displayed.

Digital Sights and Sounds

Codec: COmpression-DECompression. It's the algorithm (or program) that determines how an audio or video file is encoded. The codec determines which bits of data can be tossed away to save room.

Channel: Channel is synonymous with track. Each channel represents one microphone, or one sound source. So mono means one channel, one source. Two channels allow sound to come from two directions.

Digitize: To convert media from analog to digital format. Analog stores the music or video data as actual waves; your computer works in digital, which means that the data is represented numerically. You need an analog-to-digital converter, like Formac's Studio, to make the switch.

FPS: A polite way of saying "frames per second." When you look at a moving image on a monitor, it's an illusion. By flashing a series of still images (frames) each second, the computer tricks your eyes into seeing motion. The higher the fps, the smoother the trick. 30FPS is about the same as a TV.

MIDI: Musical Instrument Device Interface; a protocol that lets MIDI devices talk to one another. A MIDI file contains numeric information that tells a device how to play a piece of music. Think "digital sheet music." This makes it much smaller than a WAV or AIFF file.

AIFF: Audio Interchange File Format. Developed by Apple, this is a format used to store and transmit sampled sound (sound digitized at periodic intervals). An AIFF file is about 10 times larger than an MP3 file.

WAV: Waveform. The Windows standard format for sound files.

16 bit-audio: One byte equals eight bits, each of which can store 256 dis-

crete values. Sixteen bits give 65,536 options for CD-quality audio to closer represent the full dynamic range of music. The drawback of 16 bits is that one minute of sound can eat nearly 10MB of space.

MP3: Motion Pictures Expert Group One, Audio Layer III. This is the codec used by MP3 files to squeeze a large piece of music into a small amount of hard drive space. Unlike MIDI, MP3 stores the actual recording.

Scan and Print

PostScript: A language used by your computer to tell a printer how to form letters and images. Developed by Adobe, PostScript treats letters and images as mathematical equations rather than collections of dots, resulting in sharper printing at higher resolutions. With a printer that supports PostScript, you can get better results.

Resolution: The sharpness and clarity of an image produced by an output device. Typically, higher resolutions mean more dots are used to make up the image, which equals finer detail. This is measured in different ways, depending on the output device:

Monitors: Here, resolution is given as the number of pixels per horizontal line by the vertical number of pixels. So a resolution of 640 x 480 has 307,200 pixels.

Printers: Resolution is indicated as dpi, or dots per inch. A dot is a single point, like you get by tapping a pencil on a piece of paper. More dots per inch means higher resolution, which means a sharper, clearer image.

Scanners: With scanners, the measurement is dpi, and you should care about the dpi for the optical resolution. Optical resolution is what the scanner actually captures with its CCD (Charge-Coupled Device). Manufacturers also like to mention interpolated resolution, which means that software is used to boost the resolution of the scanned image by guessing at the details.

Digital cameras: A digital camera also uses a CCD. The number of pixels the camera can capture in one image is indicated as width x height. 640 x 480 is a good resolution for an image that will go on a website. For printed images, you'll need a resolution like 1,280 x 960. Higher resolutions mean more pixels, so more memory is eaten up. But the more dots, the clearer the image should be, so it's a trade-off.

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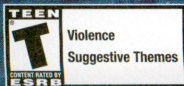
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Shoot Great Digital Pictures



Shooting with a digital still camera is a lot like shooting with a film-based camera — the digital manufacturers typically expect you to have some experience in the film world to apply. But to get the best pictures possible, you need to understand some of the differences between the two systems.

Step 1 Plan Your Output

Analog cameras are nearly always used to create paper prints of images. But you need to decide how you're going to use your digital camera before you begin. Will the shots be for email

and the web, or for printing? This decision governs several ways to tailor your quality. If you haven't decided, or you plan to use the images for the Internet and print, follow the tips for print.

The biggest choice is your resolution and compression setting. These are typically tied together, so look for options like "Basic," "Normal," and "Fine."

Consult your camera manual for exact details, as these names are relative. Basically, the lowest option will usually give a resolution of 640 x 480 with a fair amount of compression — great for email, but poor for a big image print. A 1,024 x 768 or greater picture will be too large to email, but it will give finer detail when printed.

By Zack Stern

Step 2 Image Control

Your camera will have automatic and manual controls to manage. Full-automatic mode will give good results most of the time, however there are

times to override these settings. Some cameras have a group of presets to choose for sports, indoor, or outdoor situations that work better than complete automatic control.

The manual controls that are most significant are shutter speed, brightness or aperture, and white balance. If there's enough light, increasing shutter speed will give more stable results than the automatic setting. Carefully manage the brightness or aperture to control how much light is used. Pay close attention if your pictures have a bright light in the background; the automatic settings may be fooled into adjusting the brightness for that spot and not your subject. Finally, to most accurately balance your colors, use the white balance controls. These settings will calibrate the colors based on what white looks like in the current light.

Step 3 Frame and Compose

Of course, a basic sense of composition from the film world can directly translate to a digital camera. But there are extra concerns because of the digital technology.

Depending on your resolution setting, your images will be compressed. While the compression will generally do a good job, be careful of what you throw at it. Images with many fine details like grids and thin patterns may produce blocky results instead of an accurate representation of the subject. And watch out for the lights from Step 2. On a similar note, your digital camera may not be able to easily represent the difference in contrast that a film camera can show. Use the LCD to approximately gauge if the middle intensities are represented. If they're not, reframe the picture so that

What You'll Need

1. A Digital Camera
2. Tripod or Monopod (optional)



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some of the bright areas aren't as visible or revisit the manual controls.

Step 4 Shoot

Another difference between analog and digital cameras is that the digital ones seem to produce more blurry pictures. Most digital cameras require you to be more careful when shooting to see sharp results.

When taking a picture, most cameras need you to hold the button half-way to focus, then to push it all the way to take the image. When you're ready to shoot, make sure that you're stable — lean on something if necessary — then focus the image. Follow through, and push the button all the way down, but don't release it for a few seconds; most cameras will take the picture. You'll be more stable than if you had jittered and let go.

You can adjust a few controls to try to take sharper pictures, if having mixed results. Set the resolution lower, to 640 x 480. The time required for the sensor to capture the image will be less because of the reduced area it is trying to fill. That means that you'll have to hold still for a shorter period of time. If you have enough light, manually change the shutter to a faster speed for the same reason.

If you really care about your pictures, you'll get a lot of use out of a tripod or monopod to hold steady. A monopod is more mobile than its three-legged brother, but a tripod will give steady results for even long-exposure shots.

Step 5 Export

The pictures are only as good as what you do with them. To email pictures or prepare them for the web, make sure that they're about 640 x 480 pixels, and don't compress them with StuffIt or a similar tool. For a detailed overview, see the Mac Workshop "Send Pictures Over Email" in March 2001.

While digital still cameras offer quicker access to images and give new options to distribute your photos, they take some special considerations if switching from a film camera. Plan how you'll use the image, be familiar with the camera controls, watch out for problem objects, and hold it steady for best results. More importantly, you won't waste money on film by practicing with a digital camera. Experiment with all of these tips, and you'll see the difference in your images.

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Mesa 3

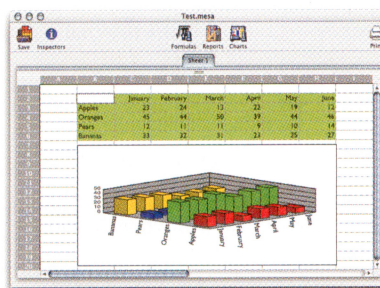
Mesa 3 is a spreadsheet application aimed at users who want a capable number-cruncher but do not need the extended feature set of Microsoft Excel. Built specifically for Mac OS X, Mesa offers a clever interface and practical chart-making tools. Unfortunately, the application stumbles with its importing.

Mesa sports a clean interface common to most Mac OS X applications. Many of Mesa's features are delivered through a series of floating palettes; unlike Microsoft Excel, icons are kept to a minimum. Only six buttons sit in the toolbar of a new spreadsheet, allowing you to save, print, and access Mesa's Formula, Report, Chart, and Inspector palettes. The toolbar is customizable, however, allowing you to add new shortcuts as required. The spreadsheet text is beautifully rendered and is easy to read at all times (even at smaller sizes).

The application supports a wide range of bar, line, and area charts. To create a chart, simply select the data set, and click the Chart button. You can change the colors by dragging and dropping a new color from the Color Palette onto one of the chart's colored sections.

Mesa imports both Excel and Lotus 1-2-3 documents to help users migrate from older applications. Unfortunately, Excel charts, macros, and text boxes are not compatible with the current version of Mesa, and as such, cannot be imported. Other high-end features, such as pivot tables and ODBC database access are also not yet supported. However, the company promises enhanced Excel compatibility will be provided in the future.

Another minor irritation is that Mesa



does not recognize a spreadsheet document unless it has an appropriate file extension like ".xls" or ".xlw."

The Final Decision

Although its support for Excel

documents is somewhat lacking, Mesa 3 is an intuitive spreadsheet application that will satisfy the number-crunching needs of most users.

— Chris McVeigh

rating

\$129

P & L Systems
www.plsys.com

Designed for Mac OS X, clean intuitive interface

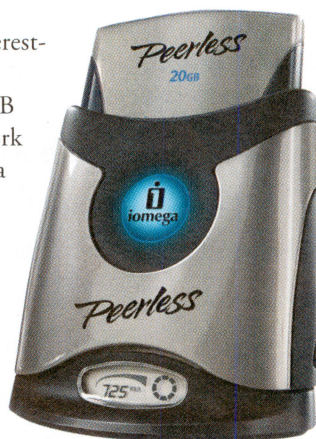
No Mac OS 9 support, limited document importing

Iomega Peerless 10GB

The Iomega Peerless is aptly named. It stands alone for a reason. Consumers will have to spend about a thousand dollars to begin to save money over reliable, portable drives.

The Peerless is an interesting concept on paper. Iomega has created 10GB and 20GB disks that work in a base station. Iomega should be able to save you money because the base holds parts that would be redundant with multiple hard drives.

But the Peerless is supposed to be a portable solution. The disks are only slightly bigger than a Palm handheld. But the base station is clumsy and makes the whole package about the



same size as a large paperback book.

To be portable, Peerless needs a base station at multiple computers so you don't have to tote one. But at press time, this is not an economical solution. A portable FireWire drive with 10GB of space costs about \$330. A 10GB Peerless disk with two base stations costs

\$610. If you decided to keep buying 10GB disks for \$160 each, the Peerless option would only save money after three disks at \$930 and the three portable FireWire drives would cost \$990. While 20GB disks are \$200, there's still not compelling savings over hard drives.

Technologically, the Peerless works. The USB option isn't fast enough to chug through video, but the best thing about Peerless is that the FireWire ver-

sion costs the same amount. It has design flaws, like the clumsy base station. And the read/write feedback light is a ghastly affair. Whenever the Peerless is in action doing anything, a large Iomega logo flashes at you rapidly. This blue-light-special will distract anyone.

The Final Decision You shouldn't get to the point of dealing with the irritating Peerless light. If you're not planning on getting the large volume of disks to make the Peerless worthwhile, there's no reason to consider it.

— Zack Stern

rating

Iomega Corporation
\$360
www.iomega.com
888-516-8467

It stores 10GB or 20GB worth of files

Not economical versus hard drives, self-serving status light

ZR30 MC

The **ZR30 MC** is a great digital video camera for new and even many experienced users. In a small case, Canon provides an LCD screen to augment its viewfinder, several manual controls for difficult situations, analog inputs and outputs, an optical image stabilizer, and more. The only problem with the ZR30, aside from the limited function of the MultimediaCard, is that you have to unmount it from a tripod to replace the videotape.

The manual controls are competent, should you need to make fine adjustments. The shutter speed, white balance, focus, and exposure settings can be tweaked. The automatic settings will work in most situations, but the manual options are good to have for unique areas, like shooting through glass.

The inputs and outputs on the ZR30 are top-notch. A FireWire in and out con-

nection lets you import, edit, and export your footage on a Mac. Analog inputs and outputs are great to digitize old footage — plug-in an old camera or VCR to copy the clips to DV. A microphone input and headphone output let you record and monitor audio from an external source.

An interesting novelty on the ZR30 is the Multimedia Card and Secure Digital slot for flash-RAM. You can shoot still photos onto the card and superimpose the photos in your videos. Don't expect the ZR30 to replace a still camera; photos are limited to 640 x 480 which will work for email but is too limited to print with clarity.

The other problem with the ZR30 is that you have to remove the camera from a tripod before changing tapes. You're sure to run into a situation where you're shoot-



ing longer than an hour, and you'll miss something while fumbling with the tapes.

The Final Decision

The ZR30 MC is a great video camera. Its top features, like LCD screen and optical stabilizer that'll smooth your shaking hand, make it a strong choice for new and experienced videomakers.

— Zack Stern

rating ★★★★★

Canon Inc.
\$999
www.canondv.com
800-652-2666

Small, optical stabilizer, full ins and outs

Have to unmount it to change tape, still photos are restricted to 640 x 480

Now Up-To-Date & Contact 4.0

Now Up-To-Date & Contact is a set of applications that manage your daily schedule and personal contacts. The latest version polishes the user interface, adds contextual menu scheduling, and supports graphic images. Unfortunately, the package's two modules need better integration.

Now Up-To-Date allows you to schedule meetings, appointments, and telephone calls as a to-do list. Once launched, the application displays the current month on a calendar that stretches across your display. You can give a new event a title, select the date and time (via a handy pop-up calendar),



add notes, and opt to have the event repeat at regular intervals. A graphics palette lets you add event icons and other images to the calendar. Unfortunately, the only way to add images to the palette is to copy and paste the graphic from another application.

Now Contact builds a robust database of friends and coworkers. You can input the name, address, phone numbers, and email addresses and attach an image for each person.

One ingenious new feature is a contextual menu that allows you to select text from anywhere (such as an email message) and automatically create an event with that text. Another convenient feature links you to web services to find a telephone number, restaurant, or street map. Now Up-To-Date & Contact also synchronize

with Palm OS handhelds, so your information is current when you're on the road.

It's unclear why there are two separate modules rather than one integrated application. Cooperation between Now Contact and Now Up-To-Date is awkward at best. You must link the two applications manually.

The Final Decision Although tighter integration between the applications (or a merger) would help solidify the package, Now Up-to-Date & Contact 4.0 is a capable event scheduler and contact manager.

— Chris McVeigh

rating ★★★★★

PowerOn Software
\$120 (\$50 for upgrade)
www.poweronsoftware.com
800-344-9160

Slick interface, contextual menu support

Modules require tighter, seamless integration

Rio 800

The perfect MP3 player needs the capacity for many songs, an intuitive and useful interface, and a long battery life. The Rio 800 delivers on all three of these items, but a few problems in playback and limited expansion options keep it from perfection.

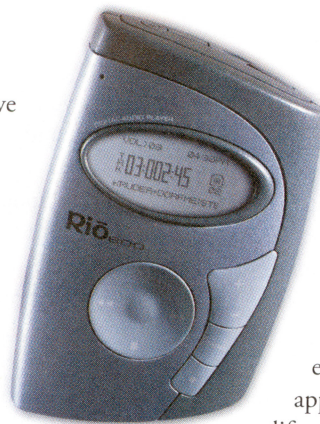
This Rio 800 comes with 64MB RAM, which is enough for one hour of music. Its battery life is a reputable eight hours, and its interface — for creating playlists and selecting songs — is direct to navigate with big buttons and a clear LCD. Extra touches like backlighting the display for dark rooms make this player a solid performer.

Smaller and lighter than a typical deck of cards, the Rio 800 can slip into most pockets. A wired remote that controls the song position is an interesting addition, but it ends up taking extra space and complicating the streamlined player.

It's easy enough to leave at home; all of the functionality is duplicated directly on the player.

To transfer songs, plug the USB player directly into your Mac — hubs may cause problems — and iTunes will recognize it. A window representing the player organizes

The Rio 800 had a few problems. Seemingly isolated to one unit, a section of the memory was bad, so that if a song touched that spot, it couldn't play. Another Rio didn't have that issue. And the expansion design opts for proprietary "backpack" replacements; don't expect to just be able to add common flash memory. If you want to add more memory, you'll have to get the special backpack, which holds the battery and RAM, to



replace the current backpack. A direct slot to add RAM would have made the process more friendly.

The Final Decision Overall, the Rio 800 is a good MP3 player. A universal RAM expansion slot would have been appreciated, but its long battery life, complete sound, and small design make the Rio 800 an option to take MP3s away from your Mac.

— Zack Stern

Premiere 6.0

This latest version of Premiere has all the tools you'll need to create high quality video projects and even place your final masterpiece on your website. Adobe Premiere 6.0 is an example of something good getting even better with improvements to audio, titling, and visual effect features. Premiere is a stable video editing solution that now allows you to directly import DV format video through your FireWire port onto your hard drive.

The new “Automate to timeline” feature can create an instant rough edit of your entire project allowing you to quickly visualize the segment once you order thumbnail icons of the video clips in the storyboard window. Included is an audio mixer window that looks and operates like a traditional mixer, providing real-time audio level adjustments. Of course, Premiere comes with some

powerful visual effects and transitions including a large number of bonus After Effects plug-ins that can add plenty of visual spice to your project.

Among the most impressive of the new web-friendly features is the ability to create web markers at selected points along the editing timeline, which, during playback, will launch a specified web page. Because of shared file formats, you'll be able to edit and export files with ease between other Adobe programs such as Photoshop, Illustrator, and GoLive.

The time required by Premiere to render effects is reasonable. Its ability to create an instant RAM preview or select only a portion of your project for rendering will eliminate unnecessary delays when “trying on” effects and transitions.



non-linear editing applications for some time to come. The time and money invested in mastering this application will prove to be a worthy investment.

— *Eric Ross*

The Final Decision

Premiere 6.0 is certainly ready for "Prime Time" with all of the ingredients; a strong title generator, audio controls, powerful filters, and effects maintain its star status among the

non-linear editing applications for some time to come. The time and money invested in mastering this application will prove to be a worthy investment.

— *Eric Ross*rating

Adobe Systems Inc.
\$549
www.adobe.com
888-724-4508

👍 Stable, Well integrated with other Adobe apps. Powerful

None

After Effects

Conventional wisdom says that if you want to make a big impact while making a speech, you need to have a great beginning and an even better ending. So it is while attempting to create engaging visual productions that you need to have a dynamic show open and close. After Effects elegantly gives you the ability to place graphic elements such as text, video, and artwork into separate layers, and then enables you to manipulate, transform, and otherwise animate virtually every characteristic of those graphic elements over time.

The new Expressions tool can enable the user, with a simple click and drag of the mouse, to link the behavior of objects in order to create changes in the properties of other graphic or sound layers. You could animate four wheels of a car by assigning the characteristics of one

tire to the remaining three. After Effects 5 is created to be used along with graphic, design, and video applications such as Photoshop, Illustrator, and Premiere, whose project files can be imported as separate editable layers. Once imported, depth, texture, and motion can be applied then exported for video, multimedia, and now directly to the web as a Macromedia Flash file (SWF).

The user interface is classic Adobe, so skills acquired from applications like Photoshop and Illustrator will go far in reducing the learning curve of this product. And yet even users new to graphic design applications will feel comfortable as they grow into the program's many features. It comes in two versions: a Standard version that is suitable for most new users, and the Production Bundle that includes network rendering and more effects for visual artists and motion graphics professionals.

The Final Decision This powerful, yet



user-friendly effects and motion graphics application is an essential tool for the serious filmmaker, animator, and now web designer. Its ability to create a wide variety of effects and designs is unparalleled.

— Eric Ross

rating ★★★★★

Adobe Systems Inc.
\$649 Standard, \$1,499.00 Production Bundle,
www.adobe.com
888-724-4508

Powerful motion graphic capabilities
None

Finecam S3

The Kyocera Finecam S3 is a great digital still camera. It provides the features of top cameras, like good manual controls, high resolutions, and competent image quality. While its zoom lens is limited, the killer feature of the S3 is its size; this camera fits underneath a credit-card and is about an inch thick.

The Finecam S3 is small enough to take anywhere. It is light, but it still has just enough heft to indicate that it's a real camera. The features that are fit into this small body are unmatched.

A 3.3 megapixel CCD captures images at up to 2,048 x 1,536 pixels with a few compression settings. You could even

shoot uncompressed, at 9.1MB per picture if needed.

But more than just statistics, the pictures look great. Fine details are reproduced, and even thin elements are clear. Colors are accurate in most situations on the automatic settings.

For more control, manual settings tune most elements of the picture. Adjust the white balance, exposure time, and aperture size. A few extras like long exposures of up to eight seconds will give you versatility and tricks for unique situations.

Battery life is solid, lasting about three hours or more. When empty, plug the cam-

era into an outlet to recharge. All of the accessories to get started are provided. Power cables, a 16MB Multimedia Card, a USB card reader, and a video cable to connect to a TV are included. It's a great feeling to open the box of the cam-



era and begin playing right away without concern for locating extra parts.

The S3 has a few flaws. First, the zoom lens is useful to have at all, but the distance between the wide and telephoto settings is limited. A digital zoom can get you closer, but it costs significant image quality. Also, the manual aperture settings are limited to two positions; subtle corrections aren't possible.

The Final Decision Its zoom and aperture may be limited, but because of its size and complete features, the Finecam S3 is a powerful camera for any user.

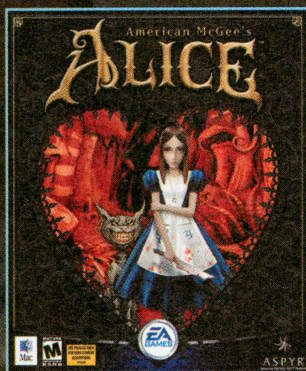
— Zack Stern

rating ★★★★★

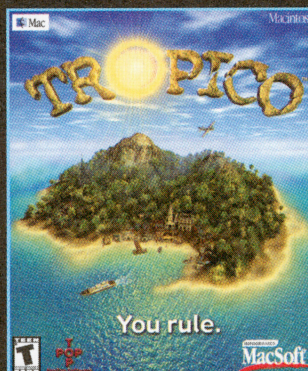
Kyocera Corporation
\$699
www.yashica.com
732-560-0060

Quality images, small size, good battery life
Aperture control is limited, zoom range is short

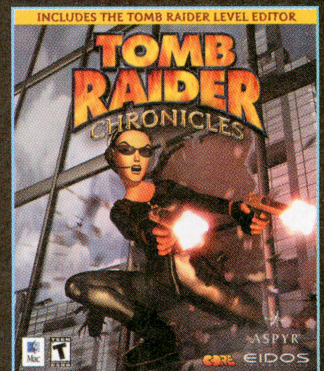
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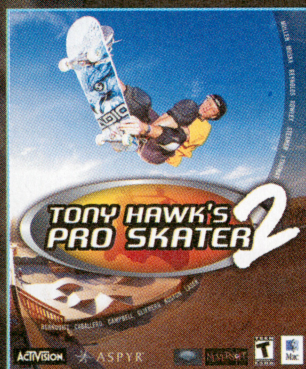
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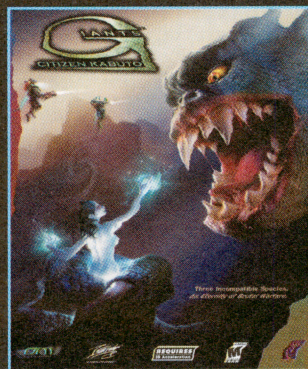
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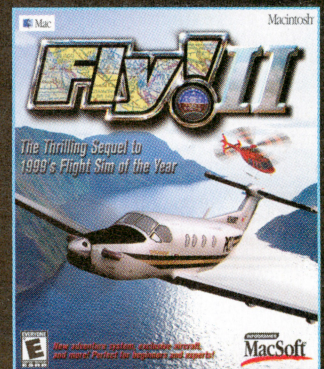
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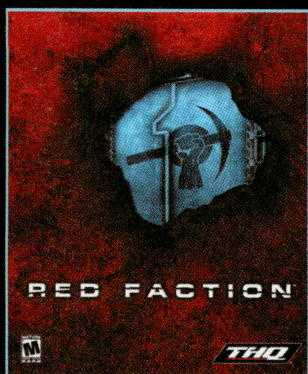


Shipping this Fall



Shipping in August

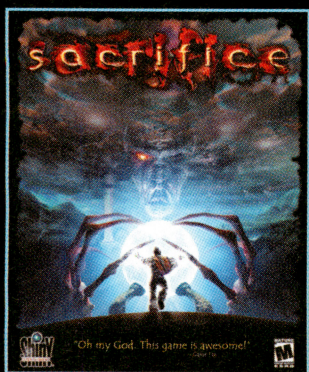
OS X



Shipping this Fall



Shipping in October



Shipping this Fall

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Mac

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Expansion Pack Strategy

Lord of Destruction Tips

Role playing games offer some of the most rewarding and challenging gameplay of any computer gaming genre. But when you've beaten the last monster, you usually aren't compelled to play the whole shebang over again from the beginning. Enter the expansion pack.

For under \$30 you can usually extend your gameplay by 20 to 30 hours, and get some even more difficult puzzles and battles to boot. Here, then, are some tips on dealing with one of the newest expansion packs on the market: *Diablo II: Lord of Destruction*.

Diablo II: Lord of Destruction

Lord of Destruction brings with it two new character classes. Here are some tips to help you figure out just how to use them properly.

Druid

Right from the start, you'll need to decide what sort of Druid you want to play. You have three main choices:

magic-user, shapeshifter, or army creator.

By Alex Handy

If you feel like busting some heads, perhaps you should invest in Lycanthropy.

Shifting into the form of a werewolf or werebear increases the Druid's attack rating (how often you hit) and damage rating, respectively. The werewolf is a good choice if you're fighting a large group of enemies at once, while the werebear is better suited to take on big nasties one at a time.

If you just can't get enough minions in your daily diet, invest your skill points in summoning. Spirit Wolves, Poison Creepers, and Ravens are excellent companions in the earlier levels. Later in the game, however, you'll need to start conserving dead bodies; the Carrion Vine eats corpses and gives you life while Dire Wolves eat them to gain strength. Be judicious with those dead monsters!



Assassin

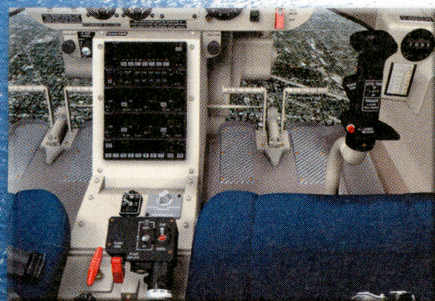
The Assassin allows for slightly less variance in playing styles than the Druid does. Firstly, she has two passive skills: Claw Mastery and Weapon Block, which should always be bumped up with skill points. Since these skills require no mana and are always on, they are infinitely more valuable than most of the other skills available early in the game.

The Assassin's charge-up and finishing moves can help to make short work of any foe. The best way to use them is to hit your opponent between 3 and 5 times with a charge-up attack, then unleash a finishing move. These moves are best saved for larger enemies, but can always be used in a pinch on smaller fry.

The Assassin's shadow disciplines and traps allow her to increase the damage she does, and to hit targets from a distance. The traps are excellent when you're cornered, but are not terribly effective in close combat. **MH**



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Baldur's Gate: Tales of the Sword Coast

Tales of the Sword Coast adds new items, areas, and monsters to Baldur's Gate. Unfortunately, most of these additions come at the end of the game; you won't be able to enjoy them until you've beaten the original Baldur's Gate. This is not only because the new areas come sequentially after the final battle; but also because the new lands are so deadly and filled with such highly skilled monsters that only the most experienced of parties will be able to handle them. Most of the new monsters are simply recolored versions of the originals (with lots more Dire Wolves). Despite this, most monsters act more intelligently in this expansion, and magic-using baddies will combine their spells and really put the

hurt on.

Of all the new additions, Durlag's Tower stands out as the best of the three new areas. It's mostly a

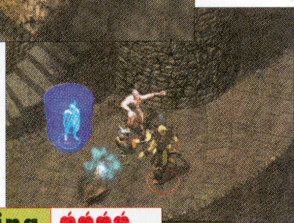
side-quest, and offers a lot of exploring and treasure hunting. Be forewarned, though: there are tons of traps. Best bring a good thief!

Along with the new items, there are also some new spells to play with (Raise Dead and Monster

Summoning III being the best) and characters also have a higher ceiling for their experience than in the original game.

Tales of the Sword Coast is an expansion that is made for the true addict: only those who want to immerse themselves back in the world of Baldur's Gate need apply. For the rest, finish the original first, then if you're having a fit of withdrawal, Tales of the Sword Coast could be for you.

—Alex Handy



rating ★★★★★

Graphic Simulations
www.graphsim.com
\$30
972-386-7575
Requires: Baldur's Gate

Tropico

A unique strategy game, Tropico lets you rule a Caribbean island however you please. With cold-war era pressures, you can build a paradise of freedom, or keep a tight rule on your people with a loyal army. Tropico puts the city-building genre in a new locale, and its premise and gameplay make it work. Because of this new direction, Tropico is a strong enough strategy game to like in spite of its sometimes-buggy play and potentially repetitive action.

Overhead 3D perspectives let you rule your island.

The different gameplay goals usually require you to stay in power a certain amount of time, make

a certain amount of money, and even embezzle a certain amount for storage in your untouchable Swiss bank account. Direct your people to build farms, cigar factories, and other industries to make money, and keep them happy with churches, nightclubs, and schools. Each citizen has its

own thoughts that you can monitor, and they decide where to go and what to do. Some of the interest of the game comes from balancing your needs and their desires; if they get too upset, they'll revolt and drive you into exile.

Some bugs keep Tropico from being a near-perfect game. If it doesn't have enough memory, increasing the quality of the graphics will crash the game. And after long sessions, the time it takes to react to mouse clicks increases. Mac OS X support is a boon, however; you may see fewer problems than in Mac OS 9.

While Tropico has a unique premise, and gameplay choices give different styles and objectives for rule, it has the potential to become repetitive. Even with that chance and some bugs, Tropico is a banana republic strategy to relish. What other city-builder lets you make alliances with Russia or enact martial law?

— Zack Stern



rating ★★★★★

MacSoft
\$40
www.wizworks.com/macsoft
800-229-2714

Breakout

A hit that still inspires clones, Breakout has been updated officially, and the revision is pulled off with enough flair to attract modern gamers while still being true to its original, simple style.

Breakout starts with a convoluted story that may make players worry that it's lost its distinct action. Presented in 3D cutscenes, your paddle's friends have all been abducted, and it's up to you to rescue them. But before long, the linear story drops you into situations where — wouldn't you know it — you just happen to have to knock down bricks or other objects by bouncing a ball off your paddle.

The modern sensibilities added to the game give you moving targets — like 3D chickens — and powerups that make your paddle grow large or do other tricks. But the beautifully simple action of

plinking a ball off your paddle remains for most of the game.

Other non-brick-breaking games are interspersed in the classic-style game.

They're typically interesting, like sumo wrestling against mad ducks, and when they're annoying, like outrunning a wolf, the diversions tend to be short.

The downside to Breakout is that it doesn't last as long as many

games; expect to make your way through it in a few nights or a week. You can go back and play your favorite levels, however, and multiplayer games give it a little extra appeal.

Who would have thought that the classic brick-breaking game, Breakout, could have a story involving dragons, sheep, evil paddles, and trips to the moon? But beneath this hook and 3D graphics is a game that is true to its soothing, ball-bouncing roots.

— Zack Stern



rating 

MacSoft
\$20
www.wizworks.com/macsoft
800-229-2714

Diablo II: Lord of Destruction

Lord of Destruction is an awesome expansion pack for Diablo II. It offers more characters to play, more enemies to kill, more stuff to find, and six new quests buried in a fifth act. Most importantly, however, it allows you to play in 800 x 600 resolution — an absolute must for anyone who plays Diablo II for more than 15 minutes at a time.

The new character classes, Druid and Assassin, are nice additions, and you should play through the game at least once with each. Depending on your choices, the Druid can use minions like the Necromancer, deadly magic like the sorceress, or he can become a fierce hand-to-hand combatant. The Assassin is somewhat more straightforward and offers a nice variety of close-up combat options. Her

charge-up moves, when mastered, can allow for a near endless barrage of fatal attacks. Thanks to her charge-ups, the Assassin has a much easier go of it during the later levels of the game.

The fifth act is, for most players, an addition that will never be enjoyed. Getting through Diablo II's four acts can be a near Herculean task. But once you've made it through to the final chapter of the game, you'll be rewarded with gorgeous new scenery and deadly new enemies; Imps and Putrid Defilers will drive you insane as hordes of them descend on you and cover you in withering attacks.

Whether you play Diablo II once a day or once a month, Lord of Destruction is a must-have. The ability to play in 800 x 600 resolution alone is worth the cost of admission. You must buy this expansion pack!

—Alex Handy



rating 

Blizzard Entertainment
\$30
www.blizzard.com
800-953-7669
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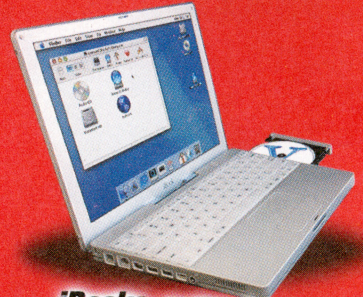
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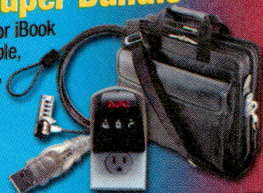


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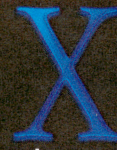
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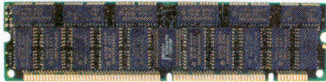
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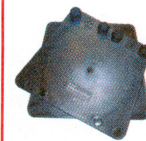
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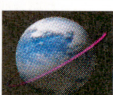
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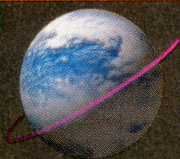


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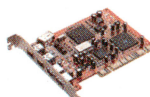
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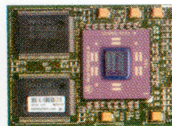
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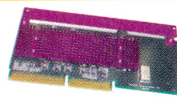
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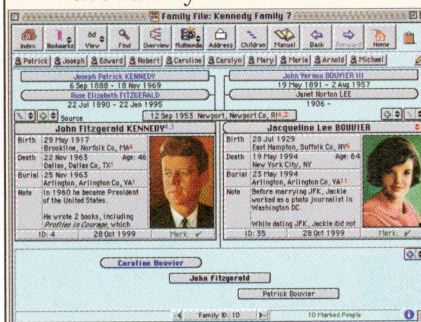
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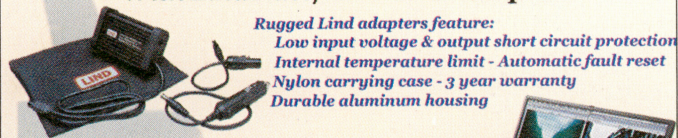
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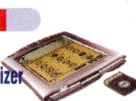
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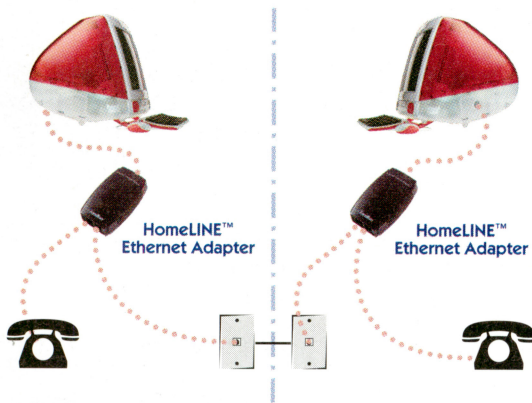
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- *4 Picture Effects
- *640x480 VGA

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Nikon



Coolpix 995

- *16 MB Compact Flash
- *3.34 Million Pixel
- *38 MM-152MM
- *(4X) Zoom Lens

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Coolpix 775

- *2.1 Million Pixel Sensor
- *38MM-115MM
- *(3x) Zoom Lens

CALL

Canon



Pro 90 IS

- *3.3 Million Pixel
- *37 MM-370MM
- *10X Zoom Lens

CALL



Powershot G1

- *3.4 Million Pixel
- *34 MM-120MM
- *3X Zoom Lens
- *Great For Low Light Settings

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Powershot S-20 Zoom

- *1600X1200 Resolution
- *1.8" TFT LCD Display
- *2X Optical Zoom
- *4X Digital Zoom
- *Built in Flash
- *Built in High Speed
- *USB Interface

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EOS D 30

- *3.11 Million Pixel Resolution SLR
- *3 Frames Per Second
- *Histogram Displayed w/Each Shot
- *13 Custom Function
- *Easy Controls
- *High Quality Still Images

CALL



Powershot S-300

- *2.11 Million Pixels
- *3x Optical Zoom
- *Smallest Digital Camera
- *Direct Print with CP-10 Printer
- *Records Movie Clips & Audio

CALL



Powershot A10

- *3X Zoom Lens
- *Direct Print with CP-10 Printer
- *Powered by AA size Batteries
- *3 Point AiAF Autofocus
- *Built-in Auto Flash
- *Photo Print Kit

CALL



Powershot A20

- *3X Zoom Lens
- *Direct Print with CP-10 Printer
- *Powered by AA size Batteries
- *3 Point AiAF Autofocus
- *Built-in Auto Flash
- *NTSC/PAL Video Output

CALL

Olympus D100.....Call
Sony DSC-P30.....Call
Fujifilm Finepix 4800.....Call
For More Listings Call or Click

JVC

Panasonic

Canon



GR-DVM510

10x Optical/400x Digital Zoom
2.5" LCD Monitor
Image Stabilizer
680,000 Pixel CCD
Night Alive / Special Effects
Still Mode / Video Light
8MB Multi Media Card

Check Our Website For Lowest Price



GR-DVL815

10x Optical / 400x Digital zoom
3" LCD Color Monitor
Image stabilizer
680,000 Pixel CCD
Night Alive / Special Effects
Still Mode / Video Light
Analog Input
16MB Multimedia Card

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Megapixel CCD,
10x Hi-Definition

PV-DV851/901/951

100x Digital zoom, Digital stills on
Multimedia cards, 2.5" LCD,
Color viewfinder, Analog-In,
Electronic Image Stabilizer

PV-DV901: 3" LCD

PV-DV951: 3.5" LCD, 3 CCD,
1.6 Million Pixels,
Digital Effects (Adds effects to videos)



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PV-DV201/401/601

680k Pixel CCD,
20x Hi-Definition 300x Digital
zoom, Electronic Image
Stabilization, Digital Stills on
multimedia cards

PV-DV201: 2.5" LCD

PV-DV401: 3" LCD, Color

Viewfinder, Magic VU IR Filter

PV-DV601: 3" LCD, Color
Viewfinder, Analog-In, Built in
light



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10x Optical,
200x Digital zoom,
Image stabilization, 2.5" Color
LCD, Long time recording,
Still digital photo mode

ZR20/25/30MC

ZR-25MC: Digital Still images
on multimedia card

ZR-30MC: Digital Stills,
Advanced accessory shoe



ELURA 2MC

*10x Optical/40x Digital
*Optical Image Stabilizer
*2.5" Color LCD
Viewscreen
Color Viewfinder
PCM Stereo,
Utilizes Multimedia Cards
for Digital Still Pictures



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SONY

DCR-PC9

*Zeiss lens 10x Optical
*120x Digital
*1/4" CCD 680k Pixels
*Steadyshot Stabilizer
*2.5" Color LCD 184k
Pixels
*640x480 VGA Digital
Still on Memory Stick



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DCR-PC110

*Zeiss lens (10x Optical,
120x Digital),
*1/4" CCD 1074k Pixels,
*Steadyshot Stabilizer,
*2.5" Color LCD 200k Pixels,
*1152x864 VGA Digital Still
on Memory Stick



DCR-TRV900

*Progressive scan CCD,
*12x Optical, 48x Digital Zoom,
*Optional Laser Link Capability,
*Digital Still Picture Capability



DCR-TRV 17/30

TRV17: *10X Optical
*120X Digital
*Steadyshot Stabilization
*Analog Recording Capability
*USB Connection
*Laserlink Wireless Connection
TRV30: 1.5 Mega Pixel Imager,
*1360x1020 Digital Still Images,
*Intelligent Pop Up Flashes



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DCR-TRV730/830

*1/4" CCD 1,070k Pixels,
*18x Optical 500 DigitalZoom,
Super steadysht stabilization,
12 bit/16 bit PCM Digital stereo

TRV830: Also comes with portable
Dye-Sub Color Printer



DCR-TRV230/330/530

1/6" CCD 460k Pixels, 25x Optical
Zoom, 700x Digital, 12 Bit/16 Bit
PCM Digital Stereo
TRV230: 2.5" LCD, 61k Pixels
TRV330: 2.5" LCD, 61k Pixels,
Digital Still w/Memory Stick
TRV530: 3.5" LCD, 123k Pixels,
Digital Still w/ Memory Stick



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SCANNERS

EPSON

Stylus Photo 1280

*Professional, Archival Quality
*Fine Art Photo Printer
w/1440x720 DPI Resolution,
*Print Sizes up to 13"x19"
*Panorama to 13"x44" Print
life rated at 200 years.
*Includes roll paper holder.



Stylus Photo 890...In Stock
Stylus Photo 880...In Stock
Stylus Photo 875...In Stock
Stylus Photo 870...In Stock

Stylus Photo 2000P

*2880x720 DPI Premiere Photo
Printer. Quick Drying Inks for
Stunning Prints to 13"x19". Border
Free Printing. 6 color Inks and
Panoramas up to 44". 4 Picoliter dot
size. Includes Oqeo Photo Genetics
& Epson Film Factory



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OLYMPUS

P-400

Uses USB or Parallel Port Compatible
with Windows and MAC, LCD
Information Panel Prints 8x10 Dye Sub
Color Photos, Professional Solution
without the Professional Budget

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P-330NIn Stock P-200.....In Stock

Nikon

Coolscan 4000ED

* 4000 DPI film scanner with fast 38 second scan time! 4.2
Dynamic range highest of any desktop scanner * Multi Scan
Feature produces Drum Scanner Quality. *Firewire IEEE 1394
interface. *Color management system. *Digital ICE, ROC, and
GEM image enhancement
technology. *Uses RGB, CMYK and Lab Color spaces.
*Includes full version of Altamira Genuine Fractals Software



Coolscan 8000 EDCall Coolscan IV EDCall

MINOLTA

Dimage Scan Elite

Scans both 35mm sleeves and mounted, positive and negative films
in color and black & white Optional Aps adapter is available, 2,820 dpi
optical resolution, 3.6 wide dynamic range, 12-bit Ad Conversion pro-
ducing 36-bit color, Digital ICE correction Enhancement, Adobe
Photoshop LE included, Available for Mac and Windows



Canon

Canoscan FS-4000

Scan Dual II...In Stock Scan Multi II...In Stock

*New affordable 4000 DPI film scanner. Uses Xenon lamp light
source. USB and SCSI interfaces. Creates 42 bit scans for
35mm and APS film. Canon "FARE" automatic dust and
scratch removal. Fast 48 second scan time and 3.4 dynamic
range. Includes Adobe Photoshop LE



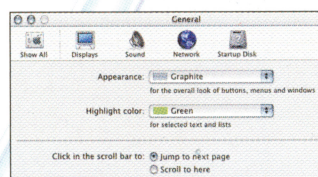
iTunes OS Shuffle, Carbon Updating, and Screen Saving OS X

Share Your iTunes Library Between Mac OS 9 and X

As we wait for the development of Carbonized software, many of us routinely switch between Mac OS 9 and Mac OS X. One item that gets caught in the shuffle is our iTunes Music Library. Mac OS 9 and Mac OS X have separate iTunes Music Library files, and so changes we make in one operating system do not carry over to the other.

It can certainly be a real chore to maintain two libraries, but thankfully, you don't have to. Start up with Mac OS X, locate the iTunes folder in your Mac OS X Documents folder, and toss it in the Trash. Now, you must locate your Mac OS 9 iTunes folder, within the Mac OS 9 Documents folder. Click the Finder's Computer button, and then double-click the hard drive that contains Mac OS 9. Double-click on the Documents folder, and inside, you'll find the other iTunes folder. Make an alias of that folder, drag it to the desktop, click the Home button in your Finder window, and put the alias into your Mac OS X Documents folder. Rename the alias from "iTunes alias" to "iTunes". Now, when you use iTunes with Mac OS X, it will automatically use your Mac OS 9 iTunes Music Library.

By Chris McVeigh



Go for the Mature Look

Do you find Mac OS X's red, yellow, and blue highlights a little too kid-friendly? Perhaps you should change to subtle graphite highlights instead.

Select System Preferences from the Apple menu. Click General at the far right. The Appearance pop-up menu provides two interface color choices: Blue and Graphite. Select Graphite and then choose a matching color from the Highlight Color pop-up menu. Now, quit System Preferences, and you're all set!

Screen Saver Fiesta

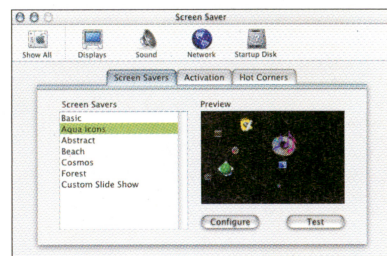
Mac OS X has a selection of built-in screen savers that are fun to watch and can protect your system from prying eyes. The screen saver isn't operational by default, so you'll have to activate it yourself. Select System Preferences from the Apple menu, and when the window appears, click Screen Saver in the

bottom left. You're then presented with a list of built-in screen savers. The Basic screen saver module is more basic than you might imagine — it's just a graphite

Apple logo that occasionally changes position on your display. The Beach, Cosmos, and Forest modules load a selection of photographs that enlarge, pan, and fade into one another. The most interesting module, however, is Aqua Icons, which has Mac OS X's utility and application icons crisscrossing each other as they zoom towards you. Once you make a selection, you can press the Test button in the lower right to take a peek at the module.

Click the Activation tab at the top of the window. You can now set the time until the screen saver starts. Set it at 20 minutes. The more important option listed here is password verification, which can provide security for your system if you happen to wander away for a few minutes (or a few hours). Click the option to Use my user account password to activate password entry. Now, if you leave your computer with the screen saver running, no one can access it without knowing your user password.

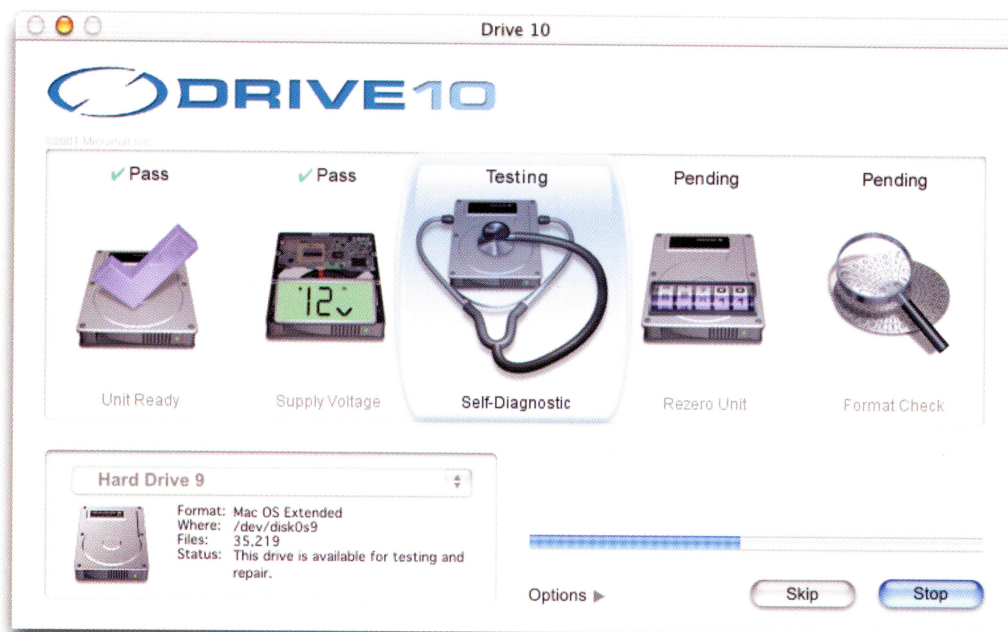
To access the final set of screen saver options, click the Hot Corners tab at the top of the window. You can now specify a corner to automatically start the screen saver. Once you have made a selection (say, top right), all you need to do is drag the mouse pointer into that corner to activate the module.



Finding Carbonized Software

It's sometimes difficult to keep track of what software has been Carbonized for Mac OS X, if it's currently shipping, and if a downloadable demo is available. Thankfully, Apple is on top of things. Simply visit www.apple.com/macosx/ on regular basis. In the far right column, you'll find a list of the latest Carbonized software. You can also click Applications in the navigation bar to get a list of all software currently optimized for Mac OS X. **MH**

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